

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Fig. 2. This sheet replaces the original sheet containing Fig. 2. In Figure 2, previously referenced element '30' has been amended to reflect reference '20'.

Attachments: Replacement Sheet, Annotated Sheet Showing Changes

REMARKS

Applicants thank the Examiner for a thorough and timely examination and for acknowledging the claim for foreign priority under 35 U.S.C. § 119, and noting that the priority documents have been received, and initialing the Information Disclosure Statement.

Applicants thank the Examiner for pointing out that the submitted oath or declaration is defective. Applicants will submit a corrected declaration as soon as all inventors have signed it.

Applicants kindly request in the next Office Action, the Examiner acknowledge receipt of and accept the formal drawings submitted herein in view of the amendment to Fig. 2 and the amendments to the specification requested above.

I. Status of Claims

Claims 1-16 and 20-34 are currently pending in the application. This Amendment amends claims 1-3 and 15-16, adds claims 33-34, cancels claims 17-19, and addresses each point of objection and rejection raised by the Examiner.

The amended claim language finds support in the specification as originally filed. No new matter has been added. Favorable reconsideration is respectfully requested.

Claims 20-32 were withdrawn from consideration pursuant to a restriction requirement.

II. Claim Objections

Claims 17-19 are objected to because the language lacks antecedent basis in the specification. Claims 17-19 are cancelled.

III. Rejections of the Claims under 35 U.S.C. §112, 1st Paragraph

The Examiner rejected claims 17-19 under 35 U.S.C. §112, first paragraph for failing to comply with the enablement requirement. Claims 17-19 are cancelled. Applicants have added claims 33 and 34 to include the limitations previously recited in claims 17-19. The newly written claims are believed to meet the enablement requirement and more clearly recite an exemplary embodiment of the present application. Claims 33 and 34 recite the features discussed with respect to Equation 6 of the specification found on page 16.

IV. Rejections of the Claims under 35 U.S.C. §112, 2nd Paragraph

The Examiner rejected claims 2, 3 and 15 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have amended claims 2, 3, and 15 to clarify the language used in the claim. Accordingly, Applicant respectfully requests withdrawal of the rejections to claims 2, 3 and 15.

The Examiner rejected claims 1-19 under 35 U.S.C. §112, second paragraph as being incomplete for omitting essential elements, such omission amounting to a gap between the elements.

Claim 1 has been amended to recite "in consideration of a column formed with the remainder". Applicants believe the step of calculating an address compensation factor is now clear especially in view of the specification.

Claims 2 and 3 have been amended to more clearly recite the step of generating an interim address. Applicants believe the claim language in view of the amendment to claim 1 now clearly recites the step of excluding or including the last column with respect to generating an interim address. The recited steps are exemplified as described in detail in the specification on page 15 lines 20-29. As per claim 3, the claim language now renders the step of increasing or decreasing the address compensation factor more easily understood, especially in view of the specification. Detailed descriptions of these steps are exemplified in the specification on page 16 lines 4-12.

In view of the amendment to claim 1 further clarifying the step of generating a read address, claims 4-14 are now more clearly understood. Claims 4-14 recite methods for generating the read address for specific conditions. Claim 1 recites a simplified method in view of equation 4 of the specification on page 14. Equations 20-25 are expanded for specific conditions but are directly related and derived from that of Equation 4. Claims 4-14 are exemplified by the expressions of one of equations 20-25 which stem directly from equation 4. The Examiner states that there is a contradiction in the steps for generating a read address with respect to claim 1 and claims 4-14. Applicants respectfully believe the Examiner is misunderstanding the recited steps. The relationship of claims 4-14 with respect to claim 1 are clearly

exemplified in the specification. Applicants believe the claims are readily understandable in view of the relationships derived in the specification.

The Examiner states the steps for calculating an address compensation factor in claims 15 and 16 contradict the step recited in claim 1. Applicants respectfully believe the Examiner is misunderstanding the recited steps. Claims 15 and 16 are exemplified by equations 7 and 9 of the specification. The address compensation factor of claims 15 and 16 is calculated based on the remainder of code symbols in the last column, which is clearly expressed in the step of claim 1. Applicants believe a better understanding of the specification will render the claim language readily understandable.

Accordingly, Applicants respectfully request withdrawal of the rejections to claims 1-19 under 35 U.S.C. §112 second paragraph.

V. Rejections of the Claims under 35 U.S.C. §101

The Examiner rejects claims 1-19 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter, specifically as being directed to an abstract mathematical algorithm. The Applicants respectfully disagree. The preamble cites “a method for reading code symbols” and the steps describe a method for generating a read address and reading the code symbol written in the generated read address. Thus, the claim clearly recites function and utility and is not merely directed to a mathematical algorithm. The Examiner states the claim as written “attempts to gain a patent on every substantial practical application of an abstract mathematical algorithm/idea.” The claim language is specifically directed to a

method of reading code symbols from an encoded packet received in a mobile communications system. The method comprises specific steps for generating the read address for reading the code symbols. The claim language does not read exclusively on a mathematical algorithm. Conversely, the claim language is clearly directed to a new and useful process for reading code symbols by deinterleaving. Applicants respectfully request withdrawal of rejections to claims 1-19 under 35 U.S.C. §101

VI. Rejections of the Claims under 35 U.S.C. §102(b)

Claim 1 has been rejected under 35 U.S.C. §102(b) as being anticipated by Kim M et al. (WO 0035102 A 1). Applicants respectfully traverse this rejection.

“[A]n invention is anticipated if the same device, including all the claim limitations, is shown in a single prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim. The identical invention must be shown in as complete detail as is contained in the patent claim.” MPEP § 2131.

Accordingly, Applicant respectfully requests reconsideration of the rejection because Kim does not disclose, suggest, or anticipate each and every feature of the claim. Kim is directed to an address for writing interleaved symbols and reading interleaved symbols. Alternatively, the present application is directed to deinterleaving symbols at the receiver, thus requiring an inverse computation of the interleaved address discussed in Kim. Moreover, Kim is directed to an interleaving method wherein there are no remaining R bits in a last written column, thus interleaving is performed with a complete uniform matrix. Since there are no

remaining R bits in a last column, Kim is completely silent with respect to calculating an address compensation factor to compensate for the remaining bits. The present application recites a method of compensating for these remaining bits, thus resulting in the step of address compensation that is neither apparent nor obvious in view of Kim. Applicants respectfully believe the Examiner misunderstands both the present application and the cited reference of Kim. Kim is directed to method for reading code symbols. However, the read address cited by Kim for reading code symbols does not include deinterleaving or any compensation for a remaining number of bits formed in the last column that does not complete the last column. The read address discussed by Kim is arguably similar to the interim address recited in claim 1. The interim address of claim 1 may be similar to the read address if there were no remaining bits in a last column. However, in systems wherein the number of bit symbols do not enable a uniform matrix in interleaving, it is necessary to compensate for the remaining bits. Kim fails to discuss generating a read address in such situations. Thus, at the least, Kim fails to discuss calculating an address compensation factor for compensating the interim address in consideration of a column formed with the remainder R, and generating a read address by adding the interim address and the address compensation factor. Applicant respectfully disagrees that Kim anticipates claim 1.

For at least the foregoing reasons, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claim 1 under 35 U.S.C. § 102(b). Dependent claims 1-16 and 33-34 are distinguished from Kim at least for the reasons given above by virtue of their dependence on independent claim 1.

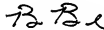
VII. Double Patenting Rejection

The Examiner rejects claim 1 on the grounds of non-statutory double patenting over claim 1 of US Patent 6668350 B1 to Kim. Applicant respectfully traverses this rejection. In view of the Arguments above, Kim fails to disclose at least the steps of calculating an address compensation factor for compensating the interim address in consideration of a column formed with the remainder R, and generating a read address by adding the interim address and the address compensation factor, nor are the recited steps obvious in view of 6668350. Because Kim fails to describe or suggest at least these recited features, there is no basis for a double patenting rejection. Applicant respectfully requests the Examiner withdraw the nonstatutory double patenting rejection of claim 1.

CONCLUSION

In view of the above, it is believed that the above-identified application is in condition for allowance, and notice to that effect is respectfully requested. Should the Examiner have any questions, the Examiner is encouraged to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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